

Case Reference

SIGNAL TO NOISE RATIO MEASUREMENT IN A COMMUNICATIONS SYSTEM

ABSTRACT

The transmission properties of the signal carrier wavelengths in a wavelength division multiplexed optical transmission system are equalised with reference to their signal to noise ratios at a receiver. Each wavelength transmitter transmits a bit sequence as a modulation on the respective wavelength. At the receiver, each wavelength modulated with the bit sequence is converted into a corresponding electrical signal. From a spectrum of that electrical signal, an electrical signal to noise ratio is determined. The measurements for the wavelengths are used to control adjustment of the individual wavelength transmitters such that the signal to noise ratios of the wavelengths are substantially equal.